PERFORMING TACTICAL COMBAT CASUALTY CARE

Introduction

About 90 percent of combat deaths occur on the battlefield before the casualties reach a medical treatment facility (MTF). Most of these **deaths cannot be prevented** by you or the medic. Examples: Massive head injury, massive trauma to the body.

Combat Deaths

- KIA: 31% Penetrating head trauma
- KIA: 25% Surgically uncorrectable torso trauma
- KIA: 10% Potentially surgically correctable trauma
- KIA: 9% Hemorrhage from extremity wounds
- KIA: 7% Mutilating blast trauma
- KIA: 5% Tension pneumothorax
- KIA: 1% Airway problems
- DOW: 12% Mostly from infections and complications of shock

About 15 percent of the casualties that die before reaching a medical treatment facility can be saved if proper measures are taken.

- Stop severe bleeding (hemorrhaging)
- Relieve tension pneumothorax
- Restore the airway

In the Vietnam conflict, over 2500 soldiers died due to hemorrhage from wounds to the arms and legs even though the soldiers had no other serious injuries. These soldiers could have been saved by applying pressure dressings and tourniquets to stop the bleeding.

Combat Lifesaver

- Functioning as a Combat Lifesaver is your **secondary** mission.
- Your **primary** mission is still your combat duties.
- You should render care only when such care does not endanger your primary mission.

Tactical Combat Casualty Care

3 Distinct Phases

- Care Under Fire
- Tactical Field Care
- Combat Casualty Evacuation Care

The three goals of Tactical Combat Casualty Care (TCCC) are:

1. Save preventable deaths
2. Prevent additional casualties
3. Complete the mission

This approach recognizes a particularly important principle:

- To perform the *correct intervention* at the *correct time* in the continuum of combat care

- A medically correct intervention performed at the *wrong time* in combat may lead to *further casualties*

Care Under Fire

- Care rendered by the medic or first responder at the scene of the injury while still under effective hostile fire

- Very limited as to the care you can provide

Tactical Field Care

- Care rendered once you are no longer under effective hostile fire
- You and the casualty are safe and you are free to provide casualty care (primary mission is complete)

Combat Casualty Evacuation Care

- Care rendered during casualty evacuation
- Additional medical personnel and equipment may have been pre-staged and available at this stage of casualty management

Care Under Fire

Care Under Fire

- “The best medicine on any battlefield is fire superiority”
- Medical personnel’s firepower may be essential in obtaining tactical fire superiority
- Attention to suppression of hostile fire will minimize the risk of additional injuries or casualties

Care Under Fire

- If the casualty can function, direct him to return fire, move to cover, and administer self-aid
- If unable to return fire or move to safety and you cannot assist, tell the casualty to “play dead”
- Communicate the medical situation to the team leader
- Use cover/concealment such as smoke

Care Under Fire

- No attention to the airway at this point because of the need to move casualty to cover quickly
- If the casualty has severe bleeding from a limb or has an amputation, apply a tourniquet

Care Under Fire

- Hemorrhage from extremities is the 1st leading cause of preventable combat deaths
- Prompt use of tourniquets to **stop the bleeding** may be life-saving in this phase

Combat Application Tourniquet (CAT)

C-A-T Pat. Pending
Combat Application Tourniquet
www.C-A-Tourniquet.com
C-A-Tourniquet@ns.net.com
Warning: Only to be applied by health care professionals. Only to be used to stop life threatening bleeding when all other methods have failed. Follow all
WINDLASS
OMNI TAPE BAND
WINDLASS STRAP

Tourniquets

Care Under Fire

- Reassure the casualty
- If unresponsive, move the casualty and his mission-essential equipment to cover as the tactical situation permits

Tactical Field Care

Tactical Field Care

- Perform tactical field care when you and the casualty are not under direct enemy fire.
- Recheck bleeding control measures if they were applied while under fire.

Tactical Field Care

- If a victim of a blast or penetrating injury is found without a pulse, respirations, or other signs of life, **DO NOT** attempt CPR

- Casualties with confused mental status should be disarmed immediately of both weapons and grenades

Determine Level of Consciousness

AVPU system

A The casualty is alert, knows who he is, the date, where he is, and so forth.

V The casualty is not alert, but does respond to verbal commands.

P The casualty responds to pain, but not verbal commands.

U The casualty is unresponsive (unconscious).

Recheck every 15 minutes

Tactical Field Care

- Initial assessment is the ABCs
  - Airway
  - Breathing
  - Circulation

Tactical Field Care: Airway

- Open the airway with a chin-lift or jaw-thrust maneuver
- If unconscious and spontaneously breathing, insert a nasopharyngeal airway

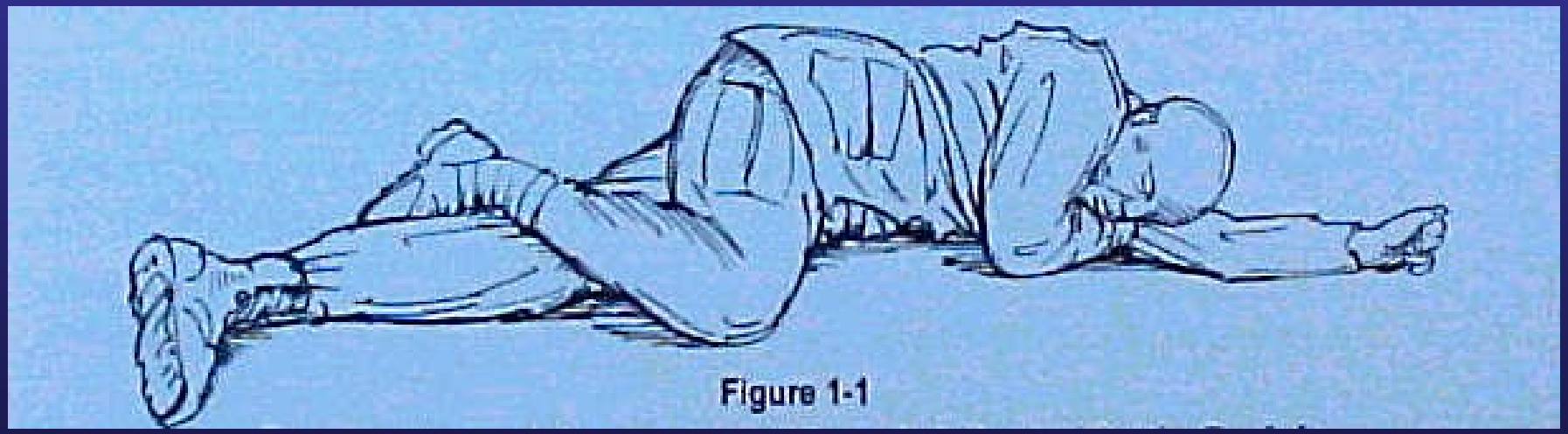
Figure 1-1

Nasopharyngeal Airway

A survivable airway problem

Tactical Field Care: Breathing

- Traumatic chest wall defects should be closed quickly with an occlusive dressing without regard to venting one side of the dressing
- Also may use an “Asherman Chest Seal”
- Place the casualty in the sitting position if possible.

"Asherman Chest Seal"

Tactical Field Care: Breathing

- Progressive respiratory distress in the presence of unilateral penetrating chest trauma should be considered tension pneumothorax
- Tension pneumothorax is the 2nd leading cause of preventable death on the battlefield
- Cannot rely on typical signs such as shifting trachea, etc.
- Needle chest decompression is life-saving

Needle Chest Decompression

Tactical Field Care: Circulation

- Any bleeding site not previously controlled should now be addressed

- Only the absolute minimum of clothing should be removed, although a thorough search for additional injuries must be performed

Tactical Field Care: Circulation

- Apply a tourniquet to a major amputation of the extremity
- Apply an emergency trauma bandage and direct pressure to a severely bleeding wound
- If a tourniquet was previously applied, consider changing to a pressure dressing and/or using hemostatic dressings (HemCon) or hemostatic powder (QuikClot) to control any additional hemorrhage

Chitosan Hemostatic Dressing

- Apply directly to bleeding site and hold in place 2 minutes
- If dressing is not effective in stopping bleeding after 4 minutes, remove original and apply a new dressing

Chitosan Hemostatic Dressing

- Additional dressings cannot be applied over ineffective dressing
- Apply a battle dressing/bandage to secure hemostatic dressing in place
- Hemostatic dressings should only be removed by responsible persons after evacuation to the next level of care

Tactical Field Care: Shock

- Hypovolemic shock results when there is a sudden decrease in the amount of fluid in the casualty's circulatory system.
- Heat stroke, diarrhea, and dysentery can also cause hypovolemic shock.
- The casualty may also have internal bleeding, such as bleeding into the abdominal or chest cavities.

Tactical Field Care: IV fluids

- **FIRST, STOP THE BLEEDING!**
- IV access should be obtained using a single 18-gauge catheter because of the ease of starting
- IV fluids should be started as soon as they are available in the OIF setting due to dehydration
- A saline lock may be used to control IV access in absence of IV fluids
- Ensure IV is not started distal to a significant wound

Saline Lock

Tactical Field Care: Additional injuries

- Splint fractures as circumstances allow while verifying pulse and prepare for evacuation

- Administer the Soldier's Combat Pill Pack

Tactical Field Care:

- Communicate: Let your unit leader know the casualty's condition: Will casualty return to duty? Does the casualty require medical evac to save life or limb? Non-medical evac?
- Initiate a Field Medical Card (DD Form 1380)
- Monitor the casualty: Airway, breathing, bleeding, and IV infusion

Combat Casualty Evacuation Care

Casevac Care

- If the casualty requires evacuation, prepare the casualty
- Use a blanket to keep the casualty warm
- If the casualty is to be evacuated by medical transport, you may need to prepare and transmit a MEDEVAC request

Casevac Care

- Use a SKED litter or improvised litter if the casualty must be moved to a casualty collection point
- If transported by a non-medical vehicle (CASEVAC), you may need to arrange the vehicle to accommodate the casualty
- If an unconscious casualty is transported on a non-medical vehicle, you may need to accompany the casualty and render additional care as needed
- Restock your aid bag when possible

Summary

- There are three categories of casualties on the battlefield:

1. Soldiers who will live regardless

2. Soldiers who will die regardless

3. Soldiers who will die from preventable deaths *unless* proper life-saving steps are taken immediately (7-15%)

Summary

"If during the next war you could do only two things, (1) place a tourniquet and (2) treat a tension pneumothorax, then you can probably save between 70 and 90 percent of all the *preventable deaths* on the battlefield."

-COL Ron Bellamy

QUESTIONS?